

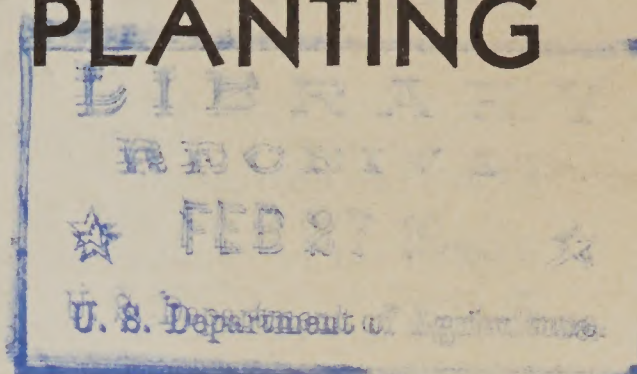
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BULBS FOR SPRING PLANTING

a catalog of



Amaryllis, Clivias, Crinums, other Amaryllids, Iris, Gladiolus, Orchids,
Colored Callas, Fancy Leaf Caladiums, Arums, Lilliums and
Many Others with Culture Directions

SPECIAL ARTICLES

Spread Your Butter Where Your Cracker Is

How to Grow Amaryllis

How to Have a Gorgeous Garden of Tropical Bulbs

SPRING 1940

CECIL HOUDYSHEL

1412 Third Street

La Verne, California

RETURN POSTAGE GUARANTEED

Sec. 562 P. L. & R.

SPREAD YOUR BUTTER WHERE YOUR CRACKER IS

A Personal Letter to You

Dear Floral Friends:

We want to thank you for the largest volume of business last fall since before the depression.

We thank you also for the many friendly letters we have received since writing our personal greetings for last fall's catalog. You know of course we get so many such letters we can only reply here in this way. The reports of satisfaction and success in growing our bulbs, and of friendliness are our greatest rewards.

Acknowledgment is made also for the many rare bulbs and seeds that have been sent us in exchange and quite often as gifts. We prefer of course to repay within the limit of our means. All these bulbs or seeds are planted in an effort to solve the problems of culture and to increase the stock and make new flowers available.

Our New Year's Greeting to all our customers is something in addition to the usual Health, and Prosperity, we add the wish for great success in your garden, and that you may have all the beauty in your home and its surroundings that you desire.

Too often we try to satisfy our natural craving for beauty elsewhere and neglect that around our home. We should of course visit Art Galleries; woods and mountains for scenery and cities for Architecture; the Theatre. But Home



The Herbert Medal. Awarded by American Amaryllis Society.

comes first. Develop a beautiful garden and home first because the enjoyment of these is not transitory but lasting. Always there.

A young lady stated this principle in a figurative but rather unique way, and the lesson was obvious.

She was receiving compliments from one who was already the accepted suitor of her girl friend. Finally the compliments became rather embarrassing and she said, "Bob, why don't you spread the butter where your own cracker is."

Could we not apply this philosophy to the home? Let us stay at home more; seek our greatest pleasures there; make our Home and our Garden as beautiful as our resources permit, and use our resources to accomplish that first. Probably all members of the family will find home more attractive and spend more time there. Make the "Hot Spots" less attractive by comparison. Make your friends and your children's friends delight in coming to your home.

Let us spread the butter where our cracker is.

Sincerely,
CECIL HOUDYSHEL

TERMS AND INSTRUCTIONS FOR ORDERING

Please note the following to avoid delay or misunderstanding about your order.

Sales Tax. California customers add 3% for state sales tax.

Order Early. Late planting results in less satisfaction with some bulbs.

Remit with order, by check or M. O. Currency or coins are acceptable but not always safe way. **Stamps** reluctantly accepted in small amounts but customer must add 6% to amount remitted. This is a small office. They handle much mail for me. My stamp purchases help this office.

Postage prepaid on order of \$1.00 or over. Under \$1.00, add 10c for postage and wrapping. Insurance 5c extra.

Prices given are for one bulb unless otherwise stated. A dozen costs ten times the price of one. Six bulbs are sold at the dozen rate. The 100 rate, if not given, is 70 times the cost of one, but no less than 100 will be sold at the 100 rate. For 50 bulbs apply the price of 4 dozen.

Wholesale prices. Dealers and organizations buying in quantity should apply for prices. Send list of wants and quantity and we will quote. For the convenience of Garden Clubs and those who wish to plant in quantity please note we give the prices per doz. and per 100 on most items in the catalog.

Catalogs. **Spring Catalogs** are sent out January 15. **Fall Catalogs** Aug. 15. An **Iris Price List** is available in April. This list is sent only to those who request it.

The Catalogs are sent to all customers and to those who request to be on our mailing list. But if no orders are received for three successive years the name is dropped.

In case of **error** in your order or misunderstanding notify us at once. We make few errors but when we do, we cheerfully correct them.

Guarantee. Our bulbs are true to name and healthy. We do not however accept any responsibility for their performance since we cannot control the conditions of their growth.

Culture directions are not sent with bulbs as all necessary information is given in this catalog.

Exchanging. We will exchange for or buy good bulbs that we can use. We want rare ones especially.

Writing letters. We enjoy the friendly letters of our customers telling of their gardens. But it is not humanly possible to answer personally each one. We cheerfully help with advice when necessary but look for it first in the catalog. Nearly all such requests received are answered there. Please do not require a personal answer if avoidable. There is a personal letter to you at beginning of this catalog.

Your **flower loving friends** would like to know about us. Show them our catalog or tell them to send a postal for a copy. Our pleased customers are our best advertisements.

GARDENING INFORMATION

Refer often to Bailey's Cyclopedia of Horticulture or Hortus in your public library. You should subscribe to the best Garden and Home Magazines. We recommend most highly the following:

Sunset. Dept. H, San Francisco, Calif. 50c per year in the west. East of Idaho, Utah and Arizona \$1.00; Foreign \$1.50.

Madison Cooper's Gardening, Dept. H. Calcium, N. Y., \$1.00 year.

The Flower Grower, Dept. H., Albany, N. Y. \$2.00 year, 25c copy.

Southland Homes and Gardens, Magazine section of the Los Angeles Sunday Times.

Several of these are on sale at news stands, but if not send the publisher (not to me) 10c for the current copy.

GENERAL CULTURE DIRECTIONS

Depth and distance apart for planting bulbs may vary considerably with nearly equal success. Generally bulbs may be planted two or three times their diameter apart. Most bulbs 1½" in diam. may be planted about 4" deep. Exceptions are noted. In cold countries semi-hardy bulbs should be planted as

deep as the nature of the bulb will permit. Small bulbs like *Zephyranthes*, *Ranunculus* or *Anemones* should not be planted (usually), deeper than 2".

Soil. Fortunately, nearly all bulbs do well in a wide variety of soils. Any rich garden soil will fit them. Sandy loams, well enriched a few months previously with manure, are preferred. If your soil is not already rich and loamy spade in deeply, thoroly decayed manure and leaf mold. Keep a compost pile or pit for all leaves, sticks, weeds etc. When reduced to a fine humus use for mulching or spade in.

Acid and Alkaline soils. Most plants thrive in a wide variety of soils but many prefer an alkaline or acid soil for best development. Some must have it. Adding much peat or leaf mold, especially oak, aids acid loving plants. For increasing alkalinity use wood ashes, lime, bone meal, or ground shell, etc. Special requirements are mentioned in catalog in the culture advice.

Potting. Be sure drainage is perfect. Place curved piece of pot over hole. Over that gravel. Soil may be 1/3 peat, leaf mold or thoroughly rotted manure, screened; 1/3 sand; 1/3 rich loam. Or it may be half rich garden loam. Add no more sand where sandy loam is used. Use peat or oak leaf mold for acid loving plants. For plants that need neutral or alkaline soil add ground limestone or bone meal and less peat or substitute other humus. Pot may be 3 or 4 times diameter of bulb. Smaller pots help to force bloom. Large pots favor growth and increase of bulbs. Firm the soil and water a little only. Give little more if any water until growth starts and roots are formed. Some bulbs will rot if kept wet while dormant.

VITAMIN B₁

The recent discovery of the plant Vitamin B₁ promises to have an almost revolutionary effect on plant culture. Its use produces much more robust growth, larger and better flowers, fruits, etc. It also lessens root shock when transplanting. We tried it on a *Hibiscus*, a shrub difficult to transplant. The shrub had been dug a week and healed in. Leaves so wilted and yellowed there was no hope to save them and little for the shrub. But it was soaked in vitamin B₁ as directed and one week later, buds are already developing. (Later it is leafing out).

We offer the genuine **Thompsons vitamin B₁**. Price \$1.00 postpaid. Try it when necessary to transplant *Amaryllis*, *Clivias*, etc., when in full foliage. Also on your *Ranunculus* and other flowers when growing. Do not use on dormant or dry bulbs. It rots them.

ARRANGEMENT OF CATALOG

Most catalogs are arranged alphabetically. This catalog groups the plants according to Plant Families. Thus the *Amaryllidaceae* contains all bulbs belonging to the *Amaryllis* Family. Look for them there. When you order, do not order an "Amaryllidaceae" but order a *Hippeastrum*, *Clivia*, *Crinum*, etc.

HOW TO HAVE A GORGEOUS GARDEN OF TROPICAL BULBS

Many southern gardens, even where the climate is semi-tropical are planned with unnecessary restrictions. Here, we are mostly northern people who have come to California bringing along our ideas of what to plant and of right culture methods.

By all means, southern gardeners should break away from the northern traditions, and even in the north there is a wide variety of rich, tropical appearing bulbs that are amenable to their conditions.

In Florida one sees many *Crinums* and other bulbs that are rarely seen here. The few *Crinums* that are common here are usually the less desirable ones, the most common being *C. longifolia*, a bulb that is hardy even in milder northern climates. But the fine hybrids and best species are rare here. Our fine hybrid "Cecil Houdyshel" had to go to Florida to receive its first appreciation.

Crinums among the trees and shrubs seem to be a necessary part of the southern garden. The tropics abound in such natural arrangements, for a well balanced landscape cannot be built on trees and shrubs alone, nor by adding only one or two types of soft foliage plants. *Crinums* vary in size from about 10" up to 6'. The length, color and shape of leaves vary and the time of flowering. The color and form of flowers vary greatly. Most of the flowers are frag-

rant. They fit every space, *C. moorei* the shade and others half shade to full sun.

A well balanced landscape effect should include a wide variety of *Crinums* and all the *Amaryllids*; all aroids, including Fancy Leaf *Caladiums*, *Callas*, colored or white. There should be vines too for which the *Gloriosas* are ideal, rich and tropical in appearance.

Here the newer hybrid *Hippeastrums* are rarely seen in gardens tho the fine old hybrid *H. johnsonii* is common.

In California and the south we should study and experiment to produce tropical effects. Gardens may include rich foliage effects, gorgeous colors in flowers and intriguing perfumes.

Incidentally, every bulb in this catalog can be grown in the north, especially in the milder sections where seasons are not too short. You Missourians could show yourselves that. *Crinums* and many more have been grown in the garden in Missouri, Ohio, Pennsylvania, New Jersey, etc.

AMARYLLIS FAMILY. AMARYLLIDACEAE

All the following bulbs, from *Agapanthus* to *Zephyranthes* belong to this family. Many of them are called simply *Amaryllis*. But the name *Amaryllis* is popularly and more especially applied to *Hippeastrums*. This is no more justified, except by usage, than to call a *Crinum* an *Amaryllis*. Botanically the name applies to the *Amaryllis belladonna*, and all the others (including *Hippeastrums*) are *Amaryllids*.

The American *Amaryllis* Society publishes annually a year book entitled "*Herbertia*." The volume usually contains about 200 pages. It is beautifully printed and illustrated and is the best source of information about species, varieties and new hybrids that is easily available. Better methods of culture and propagation are discussed. Membership in the society, including the volume "*Herbertia*" costs \$2.00 per year. Members also share in distribution of bulbs and seeds. You may send me your membership or send directly to the Secretary, Mr. Wyndham Hayward, Dept. H., Winter Park, Fla.

The 1940 Spring *Amaryllis* Show will be held at Montebello, California, in the large show rooms of the Howard and Smith Nursery on Beverly Blvd. The dates are April 19, 20, 21, 1940. There will be hundreds of the finest *Amaryllis* shown.

There will be a Fall *Amaryllis* Show at the Los Angeles County Fair, Pomona, Calif., in Sept. See our Fall Catalog for exact date and particulars.

HOW TO GROW AMARYLLIS

This discussion of the culture of *Amaryllis* together with the culture notes contained with the list of species should furnish enough information to enable you to grow successfully those members of the *Amaryllis* Family here listed.

In the south from California to Florida and in many cases far beyond these limits most *Amaryllids* are hardy in the garden. But potted plants are desirable everywhere and *Hippeastrums*, *Clivias* and others are most desirable subjects.

In colder sections only a few in this list are hardy and these are noted with the descriptions. But neither are *Gladiolus* winter hardy there, yet they are grown everywhere. Many *Amaryllids* may be grown by the *Gladiolus* method, that is planted early and dug and stored dry after frost kills the foliage in the fall.

Among the species that can be grown by the *Gladiolus* method are *Chlidanthus*, *Cooperia*, *Crinum*, *Elisena*, *Hymenocallis*, *Polianthes*, *Sprekelia*, *Zephyranthes*. Many of these, probably most, will flower more successfully if entire clumps be lifted with a lump of earth attached. Thus the roots are preserved and the clumps are not divided. Dividing the clumps encourages increase of bulbs at expense of flowering. Many grow them in tubs outside and carry them to the cellar to winter. *Ismenes* and *Polianthes* should be cleaned before storing and may be divided. All must be stored dry and above freezing temperature.

In the south, where the plants are hardy this entire list of plants excepting the *Polianthes* may be left in the ground. *Polianthes* or *Tuberoses*, we think,

suffer from being left in the cold wet ground over winter as they like warmth. Bulbs should not be chilled even in storage as it may ruin the flower bud, tho not the bulb. But some say they never dig and yet get flowers in profusion.

Clivias must be grown in full shade. A slight sprinkling of moving sunny spots on the foliage may be beneficial. But continuous sun on a leaf for even an hour or two will likely burn it. We grow ours under large Avocado trees and in a lath house with the lath not over $\frac{1}{2}$ " apart. But they should receive light and be well ventilated.

They will endure a temperature down to 28° , possibly less without injury. We saved our plants when temperatures were at 20° at night several nights, water pipes bursted, ground frozen nearly two weeks, by covering plants. Much foliage was lost but this was restored in a few months.

Clivias must have good drainage such as that produced by a slope or by under drainage. Be sure water does not stand on them in heavy soil on level ground. If like that, elevate the beds.

They like clay soils but seem to do equally well in sandy soils. Leaf mold or peat should be mixed in soil. Wonderful specimens may be grown under Live Oak trees. The soil would naturally be slightly acid. We find they will do quite well in a neutral soil but if there is any alkali, add peat to soil and small doses of Aluminum sulphate may be used. Or you can apply some Azalea or Begonia fertilizer.

Clivias are largely grown in pots, even where they are hardy. They are ideal pot plants anywhere. The drainage must be perfect. Use leaf mold or peat in soil. Give a little liquid manure when blooming or growing vigorously. They like rich soil, are good feeders. In the house a cool room at 60° to 70° is best.

Whether in pots or in the ground **Clivias** need frequent watering in the summer. But water should drain away. About October gradually lessen the amount of water. They need a period of rest and comparative dryness. But not too dry. Watch the leaves, do not let tips dry up and turn brown. **Clivias** in pots of constantly soggy soil in the late fall and winter may rot off near surface of soil. Any time a soft decay shows the cause has been too wet, not enough drainage. Dry off that plant.

Remembering the simple requirements, **Clivias** are among the easiest of plants to grow. They are certainly tough. In moving plants, we once discarded a large division that broke off too high and had no roots whatever. It laid on the surface among other plants for several months. Noting it still had some green leaves I planted it. It grew quickly into a good plant.

The culture of **Crinums** is very simple. Like the **Hippeastrum**, **Sprekelia**, **Chlidanthus**, **Cyrtanthus** and most **Amaryllids** they like a deep, very rich soil. Much manure may be used, but carefully if nearly fresh. One might expect so large a bulb would require deep planting but they do better with very shallow planting. Thus the huge bulb of *C. asiaticum* should be set with the base of the bulb only about 3" below surface. **Crinum** bulbs thrown aside and not covered will take root and gradually straighten up, rather unique performance which suggest that possibly nature may sometimes distribute them in flood waters. Bulbs endure storage well. We have stored bulbs as long as 4 or 5 years and found some of them still alive. In fact a dry bulb even after a couple of years storage will often throw a flower stock immediately when planted. Some varieties, e.g. Cecil Houdyshel, will bloom several times in a season if allowed to go dry awhile as flowers fade then watered liberally. True also of **Cooperia**, **Zephyranthes**, etc.

Hippeastrums, commonly known as **Amaryllis**, tho easy of culture are often mistreated. This is because after the gorgeous flowers are gone they are systematically neglected. The successful grower must give heed to the natural seasonal cycle of a plant. This plant after growth starts develops a flower stem and leaves at about the same time usually. After flowering comes a period of vigorous growth often lasting 8 or 9 months. At that time the bulb is growing larger and better. Perhaps making offset bulbs. It is storing up food for rapid growth and profusion of flowers for the next season.

At this time an **Amaryllis** needs abundance of water and rich food. In pots

they may be given liquid manure. In the garden manure may be added to the top soil around them or used for a mulch and later worked in. We have even used a little fresh manure with ammonia fumes noticeable. But experiment and go easy. Don't burn them. Amaryllis do not like acid soils hence do not use peat or leaf mold or add sulphur. Instead use bone meal, lime or ground shell. Plenty of crushed egg shells help.

Treated right a vigorous growth results. Don't stop them before late fall. We dry them off about November. The foliage may die back completely. We prefer that. They need a good rest and three months is not too long. If in pots, a bud will show between January and April, usually about March. For early flowers start their rest about September 1.

When bud appears, it is time to water them. Gradually increase water. When growing vigorously they need plenty of water. But all non aquatic plants need to have soil water drain or dry away enough between waterings to allow air to enter. That does not mean that soil or roots become quite dry.

We have had complaints that bulbs rotted instead of growing. The cause was watering heavily before roots form, and before the bulb had completed its rest. This is true for all bulbs. Bulbs left in the ground have plenty of roots and winter rains do not often hurt them.

A good summer method for potted Hippeastrums is to plunge the pots in the garden when thru blooming and the weather is warm. Or they may be shifted without disturbing the ball of earth. The latter method will favor stronger growth. Shift back to pots before frost. Avoid breaking up the earth around the roots if possible. They may need to complete their growth in the pots.

In the following list additional culture notes are included where necessary.

Agapanthus umbellatus. Blue Lily of the Nile. The name means "Love Flower." Many blue flowers in a large umbel, on 24" stem. The large plants form very attractive clumps with strap like foliage. Prefer part shade. Very hardy in south and in the north are easily grown and flowered in tubs or large buckets that are wintered in a light warm cellar. 50c. Per doz. \$4.50.

Alstromeria. The flowers are growing in popularity among florists. They are most unusual in their attractive coloring. They are borne in umbels on a moderately long stem. Nearly all species must be planted in the fall in the south as they start too early to be held out of ground until spring. But we find one species that starts quite late. We suggest you order at once and plant. Plant in 25% to 50% shade. Well drained rich sandy loam preferred.

A. chilensis. Assorted colors white, pink, red, orange, yellow in many tones. Alstromeria usually cost about \$2.50 per dozen. But we offer these one year old small tubers that bloom the first year, for 50c doz. Seed, 10c and 25c per packet.

Amaryllis belladonna. The naked Lady Lily, Lady Godiva Lily or Surprise Lily is common in southern gardens. It is of exquisite beauty and very spicy, intriguing fragrance. Equally valued as a cut flower or in the garden. The lovely pure pink flowers begin appearing often in late July. First the variety **major** then **minor** and last of all our unidentified **rose** variety. The latter blooms about Sept.-Oct. Foliage does not appear until after flowering, hence common names.

Culture. It is much better to transplant about July 1. Thus you will get flowers the first year. Set bulbs with tops just below surface. Transplant when clumps become too dense for free blooming.

Amaryllis belladonna are not often reported as succeeding well year after year in pots. But in the north you can at least have a flower the first year, whose sweetness you will long remember. One flower is worth the cost. Advise B. major for this.

Delivery of bulbs about June, when dormant.

Amaryllis belladonna major. 25c. Per doz. \$2.25, postpaid. 100 bulbs, \$12.50, express charges collect. Jumbo bulbs, 35c.

A. belladonna minor. White throat. 35c.

A. belladonna, late rose variety. Pure deep rose thruout. 50c. Three for \$1.25.

Amarcrinum Howardii. Interesting hybrid between *Crinum moorei* and *A. belladonna*. Very free flowering. \$2 and \$2.50.

Anigozanthos flavida. Kangaroo Paws. Dark green foliage resembling that of *Iris stylosa*. Evergreen. The many branched panicles carry small yellow inconspicuous flowers. Plant is odd and decorative but more interesting to collectors. Tender to frost but grows well in pots. Part shade. \$2.00.

Chlidanthus fragrans. The yellow *Amaryllis*. The umbels of pure deep yellow flowers with a very rich spicy fragrance are a delight in the garden. When well established they bloom very freely in spring. Best method in north is to plant in pots plunged in soil in summer and stored in winter or dig undivided clumps with some earth. Large bulbs 15c. Per doz. \$1.25. Per 100, \$9. Medium size. 10c ea.

Clivia. syn. Imantophyllum. Until recently *Clivias* have been rare and expensive. They can never be very cheap or common because they grow slowly from seeds and large plants increase rather slowly. Plants and flowers have rare beauty, and tho not gaudy the flowers easily rival orchids or lilies.

The flowers are orange toned, ranging from light yellow orange to a deep red orange, in a many flowered umbel. In pots in the house they will flower often as early as February or March. Outside our plants flower from March to late April usually.

Our method of growing *Clivias* in the ground enables us to get greater increase of plants and more rapid growth. This combined with our method of shipping the plants loose rooted, thus avoiding cost of postage on pot and soil, has enabled us to sell at more attractive prices.

The plants are not difficult to establish when handled thus. We have received very many letters of appreciation and all customers report they go right ahead and bloom.

We advise that you order at once but direct us to ship when ready. In this way we will select a plant with bud just showing. Thus you will have the pleasure of enjoying the flower soon after receiving the plant.

This delivery of a plant in bud is a great advantage. So far as we know, no one else can do that at our low price. But this applies only to large plants at \$1.50 each or more. Unless requested to hold until bud shows we will ship at once. But we cannot guarantee that moving at that time may not stop the formation of a bud.

Clivia miniata. Hardest and most valuable species. Flowers attractive yellow orange. No variations in color. Small plants at 50c. Blooming size,—but not sure bloomers, \$1.00. Large plants, in bud if desired, \$1.50 and \$2. each.

C. miniata hybrids. These hybrids do not have as broad foliage, with bluntly rounded tips as the *Nobilis* hybrids. The colors are lighter pastel tones and many prefer them to the darker colors.

They are hardier and more easily grown. The flowers are more wide open and flat. Compared to the species *C. miniata* a few have flowers that are little if any larger but in a wide variety of color tones and markings from near white to near red, while *miniatas* are all one color. Most of them are decidedly larger or better in various ways. We sold these last year for \$5.00 each. As we have recently acquired the stock of *Clivia* hybrids of another grower, we wish to make room in the *Clivia* house without enlarging it much and offer these at a very low special and temporary price of \$3.00 each. \$27.50 per doz. Largest plants, \$3.75, or \$35 per doz. Small plants, not blooming size, \$1.00. Per doz. \$9.00.

C. nobilis hybrids. Flowers range from light to dark orange red. Higher in price because we have fewer. (Personally we consider the Zimmerman strain better.) \$10. and \$15. each.

C. Zimmerman hybrids. These are claimed by the originator to be the best strain anywhere. It is certainly the best American strain, and better than any others that we have seen. The leaves are as broad as the *Nobilis* hybrids usually, but are more pointed and the flowers larger and more open. **Blooming size**, five year old plants (but not sure bloomers), \$5. each. \$45 per doz. We will not accept orders for this size in bud.

Larger plants that bloomed last year, \$7.50 each. Per doz., \$70. On this size we have to charge 50c extra on each plant if it is sent in bud.

Please note. Do not order a specified color in *Clivia* hybrids. Our plants are not marked, hence only assorted colors are offered.

Guarantee. If you get a *Clivia* that does not please you (or have in the past) you may return it and exchange for another at an expense of 75c, the approximate amount it will cost us to send another.

Time of delivery. In the south, all the year around. We hold shipments to the north sometimes during very cold weather as we guarantee safe delivery.

Cooperia pedunculata. Texas Rain Lily. Closely related to *Zephyranthes*, and may be handled same way. Hardy except in coldest sections. Probably hardy well toward the north if planted 5" or 6" deep and well mulched.

The large bulbs have a long neck and should be planted 4" deep in south. Dry climate natives. If occasionally allowed to go on dry side then well soaked a profusion of most lovely white flowers will follow. 20c ea. Per doz., \$1.75.

Crinum. Read the article, "How to have a gorgeous garden of tropical bulbs," in this catalog. *Crinums* are very popular and are often seen in the south from Florida to Louisiana and many are grown in Texas near the coast. But in California, these bulbs, among the most useful for tropical gardening effects, are neglected and little known.

The plants have a wide variety of form and all are very attractive. Some resemble small palms or bananas. The sweet scented flowers are usually lily shaped and range from pure white to deep wine red.

A large group of *Crinums* have white flowers with a wine red stripe thru center of petals. These are known as "Milk and Wine" lilies. They vary widely in color tones.

They will grow and bloom in pots but the bulbs are very large in most species and require a very large pot, bucket or tub. Hence they are not adapted to small apartments. But when space permits they are worth while. In the north they may be grown in large tubs and buckets outside and moved to light basement to winter. Or by *Gladiolus* method, preferably with ball of earth. But their perfection is reached in California and the south where they should be in every garden. Several new species and hybrids are offered this year.

Crinum amabile. A very large bulb and plant. Flowers are very large with long narrow petals, Crimson purple outside and pink inside. The flowers are very freely produced in all seasons when the bulb is well established. The delightful perfume is so strong that it scents the entire garden. \$3.50.

C. americanum. The species is native to southeastern U. S. where it is found in several varieties. Some are found in swamps and do not do well in dry climates. This variety came here long ago and does well. The lovely white flowers are tinted pink and have long narrow petals. If freely watered it blooms abundantly. Bulb is small and increases in a peculiar way by underground stolons and quite rapidly makes a large clump. 75c each. \$7.50 per doz.

C. asiaticum. A grand tropical appearing plant up to 6 ft. The long bulb gives the appearance of a large stem topped by broad handsome leaves arranged in a rosette. Large flowers of pure white with long linear narrow petals, resembling spider lilies, in umbels of about 20. Blooms nearly all the year. Set the base of the bulb only a few inches deep. Medium \$3.50. Large \$4.50.

C. campanulatum. Belongs to "Milk and Wine Lily" type. Markings are bright rose red. The "milk" is lightly tinted rose. \$2.

C. Cecil Houdyshel. The standard of hybrid *Crinums* for all qualities considered. Altho the same cross as *C. Powellii* it grows much larger,—taller, longer leaves, more robust and many more flowers. Huge bulbs up to 8" diam. It is almost ever-blooming, often producing up to 7 stalks in one year. No other *Crinum* can equal its profusion of flowers which are attractive deep rose. Blooming size, \$1. Large, \$1.50. Jumbo bulbs, \$2.00. Per doz., \$9.00, \$13.50 and \$17.50.

C. Ellen Bousanquet. A gorgeous new hybrid. The color is so unusual, we could scarce believe our eyes on first sight of it. Very deep wine red of glowing

intensity. Vigorous in growth, increasing rapidly. A "must have." Small bulbs, bloom second year, \$1.00. Large, \$1.50.

C. erubescens. One of the best of the "Milk and Wine" type. Flowers white with red-purple stripe, making a striking effect. 50c. \$4.50 per doz.

C. Gordon Wayne. Our 1938 introduction. A seedling of Virginia Lee and thus the first third generation hybrid *Crinum* ever raised. Flowers large pure white, in late summer. Like Virginia Lee and its seed parent *C. moorei*, it has been reported that Gordon Wayne does not do so well in Florida. The cause may be wrong culture or a soil condition. Here in California they are sturdy, thrifty growers, increase rapidly and bloom profusely. Virginia Lee and Gordon Wayne set seed profusely and are the only *Crinum* hybrids that do.

They should have nearly full shade, deep rich well drained soil. Price \$7.50.

C. H. J. Elwes. A clear rich pink of unusual color tone for *Crinums*, and most lovely. \$2.50.

C. J. C. Harvey. Beautiful soft pink flowers. A hybrid raised by the pioneer California horticulturist of that name. \$1.00.

C. kirkii. One of the best species. White with red band thru center placing it in the "Milk and Wine" type. The large umbels have many open at a time up to 10 or more. This with the great beauty of the flowers make a group of them in bloom a never-to-be-forgotten sight. 75c. Per doz., \$7.

C. longifolia alba. (syn. *Capense alba*) White lily shaped flowers. This is the hardiest species, surviving the winters with protection if planted deep, as far north as Ohio. Better than *rosea*. 50c. \$4.00 per doz.

C. longifolia rosea. Pink flowered form. 60c.

Louis Bousanquet. Very free flowering thru an unusually long season. Pink flowers on a very tall erect peduncle. \$1.00.

C. moorei. Large pink, bell-shaped flowers in the fall, freely produced. The long neck of the bulb surmounted by rotated broad leaves give the plant great decorative value. Requires shade. Nearly as hardy as *longifolia*. 50c.

C. podophyllum. A very pretty small plant that grows well in semi-shade. Flowers said to be pure white and very nice, but apparently is not a free bloomer. 60c.

C. powelli alba. Extra fine pure white. One of the most valuable and beautiful *Crinums*. 50c. Per doz., \$4. Small bulbs 15c. Per doz., \$1.50.

C. Virginia Lee. Our 1934 introduction. Many sold at \$10 each. Hybrid of two hybrids, Cecil Houdyshel X J. C. Harvey, the first *Crinum* so produced. The flowers are large, and pink with a white throat. More attractive than those of *C. moorei*. Must be grown in shade. There is a tendency for them to become dormant in mid-summer and to grow vigorously in cool weather. Price \$4.00.

Cyrtanthus are closely related to *Zephyranthes*. Bulbs and plants are about the same size but the flowers are long and tubular. Their most vigorous growth and flowering is in the winter, tho a few flowers are produced thru a large part of the year. They may become semi-dormant in mid-summer when hot but should not be dried off much. They like rich soil and respond to barnyard fertilizer.

The winter flowering habit make *Cyrtanthus* very desirable in southern gardens and for growing in pots in the north. Useful for cut flowers.

C. lutescens. Bright yellow tubular flowers. 35c.

C. mackenni. Clear ivory white flowers on a larger plant. 35c.

Elisena longipetala. Rare Peruvian amaryllid. Bulb and plant much like *Ismene*, *Hymenocallis calathina*, and culture the same. The flowers are much prettier, being pure white with long petals. It may be grown in the north easily, like *Ismene*, by the *gladiolus* method. \$7.50 each.

Eucharis grandiflora. One of the most beautiful amaryllids. Flowers pure waxy white with a cup resembling narcissus, *Ismene* etc. They are almost impossible apparently in California, tho said to grow and flower on the north porch of every negro's shanty in Florida. We are getting dry bulbs from Florida this year which may flower after starting. Pot in soil containing one-third dry, screened cow manure and the balance rich sandy loam soil and leaf mold. Add

a little bone meal. Drainage must be good as plants need much water when growing. \$1.00.

Haemanthus. Very rare amaryllids, altho of relatively easy culture and having the qualities of beauty and individuality that should commend them and encourage you to try them. Soil should be made acid by adding peat or leaf mold and keep bulbs dry when dormant.

H. coccineus. Blood Lily. The rather flat bulb sends up an attractive red-mottled flower scape in August to September, topped by an umbel of many small, closely spaced, red flowers, 4" across. There may be 50 or more flowers in an umbel. Later two or three wide leaves appear. The leaves die in the spring. The bulb should then receive no water until August. Plant where water can be withheld. Easily grown outside in the south. In the north grow in pots. Delivery of dormant bulbs in June. Plant at once and save roots. \$1.00. Extra large bulbs, \$1.50.

H. multiflorus. Exceedingly rare and of rich exotic beauty. An umbel of its red flowers may exceed a foot in diameter from a large well established bulb. It is reported to sell for \$25 each when in bloom in N. Y. flower shops. The plant is entirely different in appearance from the preceding species, having a stem-like neck when in growth, many very attractive leaves and flowers in early spring before foliage appears. It is recommended to grow in pots everywhere. Place in cool shade of a tree. Soil composed largely of oakleaf mould from beneath oak trees is ideal potting soil. Water very little until growth begins. Blooming size \$3.50. Large, \$5.00.

Hippeastrum. The correct botanical name for the bulbs popularly known as Amaryllis. But we may call them by either name. They are the most gorgeous of flowering bulbs. The flowers range in color from pure white thru a variety of pink tones, shades of red to deep glowing red. In the intermediate colors there are various markings. A few are spotted. Some have a light throat, some a contrasting band thru center and some are vittate, that is with many colored lines. In the pinks and reds there are all tones, salmon, scarlet, garnet, carmine, crimson, maroon and many more. The hybrids are grown from seeds and no two are likely to be quite alike. Many amaryllis have a delicious fragrance.

Modern hybrid Amaryllis range in size from a diameter of 5" up to 10" but the medium sizes 6" to 7" diam. are the more choice. They are more graceful. The extremely large flowers usually have very pointed petals instead of the well rounded tips that the experts demand and even the amateur will prefer if compared. The too-large flowers also have a tendency to a thick coarse or ridgy texture and a very decided tendency to be floppy.

Much green in the throat is objectionable but those in which green has been entirely eliminated and which have the other desired qualities are more expensive. Many of our hybrids at all prices have no green, and none have much.

Many Amaryllis throw off season flowers. Several strains have been called "everblooming." But it has not been personally demonstrated to me that the same bulb will bloom more than once or occasionally twice in one year. There is no doubt that a very large bulb may produce 3 or 4 blooming stems in one year. These may be in succession or at longer spaced intervals. Fall bloom is seen in the fields of all growers. Most amateurs get them sometimes in the potted bulbs. But it is probable that these are delayed buds. Breeders are developing this tendency. But it should go along with high quality.

There is much interest in white Amaryllis. Probably amateurs should be satisfied with "near whites" or those in which white predominates. Pure whites are very beautiful, but unfortunately expensive. We have paid \$5.00 each wholesale in Holland for them. \$10 each is a reasonable retail price for pure white, high quality Amaryllis. The pure white are weak and difficult to grow, while the near white are as hardy as any.

This very full discussion is aimed to answer the flood of inquiries received as a result of the article in December Sunset Magazine. Sunset and its garden editor, Mr. Gillespie, are to be commended for promoting the increasing popularity of Amaryllids.

Hippeastrum Hybrids. These produce high quality flowers, as we throw away the "Dime Store" quality. Colors assorted. Don't ask for certain colors in this lot. 50c. \$5.00 per doz. Jumbo bulbs 75c. (Some fine sorts produce only small bulbs.)

H. near white Hybrids. Like one of their probable ancestors, *solandri-florum* or *ambigu*, these have a very rich, spicy fragrance. Color white, variously marked pink and in variable degree, but white predominates and gives the effect of a white flower. Blooms rather late. \$1.00.

H. Red Hybrids. All red with little or no markings but some are a little lighter in throat. \$1.00.

H. equestre. A vigorous species producing lovely salmon pink flowers. Should be grown in very thin sandy soil as it never blooms in our rich soil. 25c.

H. johnsonii. This old hybrid is the one most often seen in southern gardens and is a favorite for potting. The rich deep red flowers with broad contrasting white band thru the center of each petal stand out in the garden. It is one of the hardiest, easiest to grow and most rapid in increase. 40c. Extra large 50c.

H. McCann's Double. A few extra petals on an *amaryllis* flower is not unusual. But a large flowered *amaryllis*, easy to grow, and with flower as double as a rose, often 25 petals, that is sensational. This variety was developed from the old, hard to grow, very double *H. Alberti* crossed on a large flowered hybrid. Color scarlet red. Price, \$1.75.

H. Sibyl Houdyshel. A "near white," having a white ground with narrow pink border and a pink flush in throat. \$4. No wholesale discount.

H. advenum. Ox-blood Lily. This is a fall bloomer and winter grower, belonging to the subgenus *Habranthus*. Hence not included in alphabetic order with the above. Often listed as *Habranthus miniatus*. Small dark red flowers in an umbel of 7 or 8. Very hardy and will stand at least 12° below freezing. Probably safe to plant quite far up toward north. Plant 6" deep, full sun. Delivery of bulbs in June when dormant. 20c. \$1.75 per doz.

H. advenum. Pink form of above. 35c. \$3.50 per doz.

Habranthus robustus. Formerly listed as a *Zephyranthes*. Large, lilac pink flowers that are useful for cutting. The summer foliage persists into the winter when warm. 15c ea. \$1.50 doz.

Habranthus texanus. Usually listed as a *Zephyranthes*. Very small plant and bulb. Deep yellow flowers, coppery outside, in fall before foliage appears. Texas native. Hardy much farther north. Plant 2" deep, or more farther north. June delivery. 15c ea. \$1.25 doz.

Hymenocallis. Spider Lilies and Ismene. This genus contains some of the most beautiful of the *Amaryllids*. Few except the *Ismene* are seen commonly in gardens. Their exquisite white, dainty beauty makes this fact regrettable. They should be in every southern garden.

Culture. The *Ismene* and many of the *Spider Lilies* can be handled by the "Gladiolus method," dug in the fall after tops die (or are killed by frost) and stored in a frost free cellar. Dry the bulbs well. As they like a long season plant as early as possible or in the north start in pots and shift to garden when warm. In the south it is probably better to leave in the ground tho we dig ours usually.

Hymenocallis calathina. The *Ismene* or Peruvian Daffodil is an old favorite. Large white flowers flushed and veined green with large cup in center. Very fragrant. Specially priced as we have a large stock. Large, 25c, M., 15c, S., 10c. Per doz., \$2.25, \$1.25 and 90c.

The next five are very rare *Ismene* hybrids, more beautiful and very free flowering. No wholesale discounts.

Hymenocallis calathina Advance. Grows two feet high. Very large pure white flowers, green stripes in throat. A great improvement and much more free flowering. \$3.50.

H. festalis is a *H. calathina* X *Elisena longipetala*, hybrid. Magnificent pure white large flowers. \$3.50.

H. festalis Triumph. Very large, elegant, snow white flowers. A great improvement on *Festalis*. \$6.00.

H. Sulphur Queen. *H. calathina* X *amancaes* hybrid. A primrose yellow *Ismene*. \$2.00 each.

H. caribaea. An easily handled large Spider Lily. Hardy as far north as N. Carolina and no doubt could be easily grown in northern states as the hardy *Amaryllis Halli* if planted deep below the frost, and mulched. 50c.

H. Galvestonensis. Famed Texas Spider Lily. Hardy probably in Arkansas, Tennessee or even farther north if planted quite deep and mulched. It grows naturally at a depth of about 6" to 10". It has been slow to start here. The record stands thus. First year, very few came up but bulbs sound. Second year, nearly all came up but none flowered. This, the third year we hope for flowers. Recommended only for those who like to experiment, hence a lower price. 35c.

H. species #1. A small Spider Lily much grown in north by *Gladiolus* method but not a free bloomer that way. The bloom will be increased if clumps are dug with earth and dried but not divided. It must not be divided in the south, if flowers are wanted in quantity. Single bulbs bloom easily in small pots. Try deep planting and mulch in the north. 15c. \$1.25 per doz.

H. species #2. One of the large species that is ever green unless cut by a hard frost. The large white flowers are produced freely in umbels and are exquisite. Will do well anywhere in mild climates and no doubt hardy in Washington, D. C., or further north if planted deep and mulched. They grow well in buckets or tubs and flower freely. Single bulbs could be grown in a 10" pot. They would likely bloom in north if handled by the *Gladiolus* method as they stand storing well. \$1.00.

Leucojum vernum. Quite hardy in north. Blooms early often before snow is gone. Dainty white flowers, each petal tipped with a green dot. Delivery about June. 10c. Per doz., 50c.

Lycoris. Fall blooming *Amaryllids*. Hardy well up into middle south. *Radiata* and *Aurea* do not lose their foliage at 20°, and might stand lower without injury. *L. squamigera* is quite hardy in north and probably also *L. incarnata*. All are of very easy culture.

Delivery of all species in June.

L. aurea. Golden Spider Lily. Very rare and one of nature's most gorgeous flowers. Deep gold. Plant about 4" deep. Prefer sandy soil. \$1.50.

L. incarnata. Flesh colored flowers with reddish markings. \$2.50.

L. radiata. Red Spider Lily. This is one of the south's very best bulbs. A bed of them in bloom will catch and hold the attention in any competition by other flowers. Large umbels on 12" stems of the most vividly red flowers with long, undulated and reflexed petals and very long stamens. One of easiest bulbs to grow. Hardy to North Carolina. Low price. 15c. 8 for \$1.00. \$1.20 per doz.

L. squamigera. The famous hardy *Amaryllis Halli*. The flower umbel without foliage resembles *Amaryllis belladonna*. Color, lilac to pink. Plant 6" deep and mulch in the north. Every northern garden should have them. \$1.00 ea., \$10.00 doz.

Nerine filifolia. The smallest *Nerine*. Evergreen foliage with dainty pink flowers in the fall. Moved any time of year. Hardy only in south, does not stand much frost. All *Nerines* do well in pots. 15c ea. 7 for \$1.00. \$1.50 per doz. \$10 per 100.

Nerine, assorted hybrids. Very lovely varieties are included. Summer delivery. \$1.00 ea.

Pancratium maritimum. Has sweetly fragrant white flowers like the *Ismene* but smaller and has no green in throat. Summer delivery. 15c ea. Per doz., \$1.25.

Polianthes tuberosa. Tuberoses. Favorite flowers both in south and north where they are dug in the fall and stored. The long spikes have many pure, waxy white flowers with the sweetest perfume in the garden. They are much used for cut flowers. Bulbs should not be chilled in storage as it may kill the flower bud tho bulb is uninjured. Don't plant until weather is warm or flower bud may chill and die. Plant with corn, beans, tomatoes, dahlias. We have raised a nice stock this year and are able to reduce the price to a point where you will want to grow a lot.

P. tuberosa, var. Double Pearl. 10c ea. 75c doz. 100 for \$4.60.

P. tuberosa, var. Mexican Everblooming. Single flowers. Some think them prettier than the double. 10c ea. 75c doz. 100 for \$4.60.

P. tuberosa, var. Mexican Everblooming, Foliage variegated. This variety has green leaves with a broad white margin. 10c ea. 85c doz. 100 for \$5.25.

Special. We want you to grow many tuberose this summer. Our stock will stand the strain of a low price. Therefore will offer you **Assorted varieties**, 50c doz. 50 for \$2.00. 100 for \$3.85.

Sprekelia formosissima. Jacobean Lily. Often called *Amaryllis formosissima*. The gorgeous red flowers have long, narrow petals, the three lowest rolled together to enclose the stamens and style and deflexed. This gives a somewhat orchid-like form. Flowers in spring later than *Hippeastrums*. Culture like *Hippeastrum*. Fine in pots. Be sure to rest them. Hardy to North Carolina and Washington, D. C. Farther north, store like glads or grow in pots. Large bulbs 25c. Per doz. \$2.50. Per 100, \$15. Extra large, each 40c. Per doz. \$3.50.

Sternbergia lutea is a small, yellow flowering, winter growing *Amaryllid*. It is often called "Fall Crocus." Culture like others of this type. Plant 3" deep. Delivery in June. Each 15c. Per doz., \$1.50.

Vallota purpurea. Blood red flowers in umbels in summer. Resembles *Clivias*. Grow in pots. Soil $\frac{1}{3}$ rich loam, $\frac{1}{3}$ sand, $\frac{1}{3}$ leaf mould or peat with fine rotted manure. Water slightly until bulbs start or they rot. Keep dormant in winter, warm sunlight; almost but not quite dry. \$1.00 each.

Zephyranthes. Fairy Lilies. The smallest and daintiest *amaryllids*. They are from 6" to a foot tall. Make wonderful bedding or border plants. Free bloomers thru a long season. A bed or border of the white *Z. candida*, in bloom is like a patch of snow in the garden. All are very hardy in the south and some are natives. In the north they may be dug and stored tho no doubt they would winter safely in milder sections if well mulched. They like acid soil, abundant moisture. Soil acidity can be increased by incorporating peat or oak leaf mould. For *Z. rosea* (possibly others) it may be occasionally necessary to sprinkle the bed with aluminum sulphate, 1 teaspoonful to a square foot.

Z. ajax. Yellow flowered hybrid. 15c. \$1.25 doz.

Z. candida. The best pure white. Very hardy, rapid multiplier and easy. Blooms from mid-summer on. Evergreen. 10c. 50c doz. \$2.50 per 100.

Z. citrina. Best yellow species. Rare. Increases easily from seed. 15c. \$1.40 doz.

Z. grandiflora. Incorrectly listed usually as *carinata* or *rosea*. Largest plant and flowers. Pink. 10c ea. 75c doz.

Z. rosea. The smallest *Zephyranthes*. Very dainty pure pink flowers. This is the true *rosea*. 10c. 90c doz.

For *Z. robusta* and *Z. texana* see *Habranthus*.

IRIS FAMILY. IRIDACEAE

The Iris is the type plant of this family which includes also *Gladiolus*, *Watsonias*, *Ixias* and many more that we list in our fall catalog.

GLADIOLUS

Since learning how to control thrips, *Gladiolus* with perfect flowers are seen everywhere. If you are not growing a lot of them, and following the culture directions given here, you are denying yourself much pleasure.

Culture. Glads planted November 15 to March 1 in Southern California (a little later in Northern California and early as possible in spring in the east) are reasonably sure to escape the attack of thrips. But glad bulbs must be early matured and early dug or they will not start early and thus bloom early. Our glad bulbs are especially grown for this purpose, matured early and dug in August. Note the small root knobs on base of bulbs. That means they have completed their rest and are ready to go.

Thrips are very small insects that suck the juices from the plant. They cause the flowers to wither or appear burned, and appear only after weather becomes warm.

Effective preventative measures. Plant early so that the glads bloom before weather becomes hot. Don't plant thrips when you plant your bulbs. They may be concealed in the husks. To kill these soak the bulbs in a solution of corrosive sublimate. Use an ounce of powdered (commercial) corrosive sublimate dissolved in a gallon of boiling water and add to 7 gal. water.

Do not allow the solution to come into contact with any metal. Use glass, crock or wooden barrel. Corrosive sublimate is a deadly poison, quickly fatal to humans or animals including thrips. Metal renders the solution ineffective and is corroded.

Soak the bulbs 5 or 7 hours. Thrips can get on again after soaking so plant at once or protect.

Clean up and keep clean from trash, leaves, etc., the premises around where thrips may hibernate over winter. Burn old foliage, or compost and keep wet.

Glads need abundant moisture and if watered by overhead sprinkling it seems to wash off the thrips and protect the flowers. We use the Skinner system of irrigating, turn the water on for a half hour every evening and are able that way to have good flowers all summer even into August.

If you will follow our method of sprinkling daily, even for a longer time if thrips appear, you can plant in succession for later flowers after March 1.

Do not treat the bulbs you buy from us. We treat all bulbs before we sell them.

Plant Glads 4" deep. Small bulbs 3". Bulblets 2". One row or two in a 4" wide furrow. Rows 15" to 20" apart. Glads like neutral to slightly acid soil. Alkali is very harmful. If available use peat liberally. We place a 1" layer over glads before covering and then mulch with peat. Oak leaf mold probably better. Use no manure except several months before planting. It is alkaline. For same reason use no commercial fertilizers except superphosphate, an acid, which is good but may burn. Use small handful to 4 ft. of row, after glads are 6" high. Avoid contact with foliage.

Keep glads well watered and cultivated two months or more after flowering. The longer they grow the better your bulbs will be. Incidentally do this for all bulbs. When glads are thru growing the leaf tips begin to yellow and it is then better to dig. Tho it can be done in the south, it is really better not to leave bulbs in the ground.

Explanation. In this list L. means large, 1 1/4" diam. or over. M. means medium, 3/4" to 1 1/4". S. means small bulbs, blooming size, tho unless watered very freely the spikes may be short. We have seen 1/2" Los Angeles bulbs make plants 5 ft. high by daily sprinkling. Large bulbs bloom earlier and throw more spikes. Prices are for one bulb. A dozen, all of one variety, costs ten times the price of one, unless otherwise stated. Not less than 6, (all of one variety) will be sold at dozen rates. 100 bulbs of one sort are sold at 70 times the cost of one. Unless quantity prices are otherwise stated.

California customers must add 3% sales tax to these prices.

GLADIOLUS LIST

Albatross. Tall, large pure white. L. 6c. Per 100, \$3.50.

Annie Laurie. Ruffled rose pink. L. 5c ea.

Bagdad. Tall, large smoky rose. M. 30c doz. S. 15c doz.

Betty Co-Ed. Small creamy pink. Fine in bouquets. M. 25c doz. S. 15c doz.

Betty Nuthall. Early orange pink. M. 25c doz. S. 15c doz.

Bill Sowden. Very large, fine deep red. L. 6c ea. M. 40c doz.

Chas. Dickens. Tall fine radiant purple. L. 5c ea.

Com. Koehl. Large glowing scarlet. L. 6c ea.

Dr. F. E. Bennett. Flame red. L. 5c ea. Per 100, \$2.50. M. 25c doz. Per 100, \$1.35. S. 15c doz. Per 100, \$1.00.

Gate of Heaven. Ruffled, rich yellow. L. 7c.

Golden Dream. Favorite tall, deep yellow. L. 5c. Per 100 \$3.50.

La Paloma. Early, bitter-sweet orange. M. (fine bloomers) 25c doz. Per 100, \$1.50.

Lavender Delight. Delightful, but rose purple. L. 7c.

La Verne. Tall, large creamy yellow, flushed pink. L. 6c ea.

Los Angeles. Orange toned pink. Most flowers per bulb. So vigorous, it should be planted 6" apart. Give abundant water. L. 5c. Per 100, \$2.25. M. 20c doz. 100 for \$1.00. S. 15c doz. Per 100, 65c.

Margaret Fulton. Coral pink, shading to rose doree on tips. L. 7c ea.

Marmora. Tall, large smoky lavender. L. 6c ea. M. 45c doz.

Marolee. New, lovely geranium pink. Yellow throat, 10c.

Minuet. Favorite lavender pink. L. 6c. Per 100, \$3.00.

Mrs. Konynenburg. Most popular blue. L. 5c. Per 100, \$2.50.

Pelegrina. Deep violet blue. Early. L. 5c. M. 30c doz. Per 100, \$1.25. S. 20c doz. Per 100, 80c. Small bulbs bloom well.

Picardy. Voted the world's most popular glad. Shrimp pink. L. 5c Per 100, \$2.25. M. 25c doz. Per 100, \$1.00. S. 15c doz. Per 100, 65c.

Radiant Orange. Our largest and best orange. L. 8c.

Red Lory. Red with rhodamine purple throat. L. 6c.

Red Phipps. The market's favorite red. L. 6c.

Souvenir. Best deep yellow Primulinus. L. 5c.

Star of Bethlehem. Tall, large pure white. 8c.

Wasaga. Large apricot flowers. L. 6c. M. 4c.

Assorted varieties. No selection allowed. Some are high priced. Per doz. 50c; per 100, \$2.00.

Gladiolus Bulblets. Good assortment of varieties, 50c quart, postpaid. Or Picardy, Los Angeles, Pelegrina, Dr. Bennett, Betty Nuthall, 75c qt. Plant thick, 100 to the foot, 4" wide. Cover 2". Keep wet.

Bearded Iris. Once popularly called German Iris and Flags. Best known and most popular Iris. They were named for the Goddess of the Rainbow and justify the name because they show more colors than the rainbow.

Iris Price List, issued about April while Iris are in flower. Sent only to those customers who request it. We have a few 1939 Lists still available. Iris may be planted at any time of year but those planted now are unlikely to bloom this year, except the fall blooming types like Golden Cataract, and Everblooming Plicata.

The best time to plant is soon after flowering time, about May and June. Except for the following **Specials** we prefer not to disturb our Iris until that time. The best way to select a list is to see the flowers.

Culture. Plant the rhizome only 1" deep. Water only slightly until they start. Too deep planting or excessive water before they start, or manure in soil often causes rotting. Positively use no manure in soil. Best soil is on heavy side but they do well in sandy soil. They prefer neutral to slightly alkaline soils, therefore use no peat or leaf mould. They like ground shell, limestone or wood ashes in moderation. Let Iris rest in late summer, bake dry, for best spring flowering.

Plicatas have a light ground color with deeper colors in a feathering or stippling.

Cecil Houdyshel. Tall lavender plicata. 25c ea. \$2.00 per doz.

Bobby Houdyshel. Dwarf phlox pink plicata. 10c ea. \$1.00 per doz.

Eleanor Brooks. Like Bobby Houdyshel but taller, and has more yellow in throat and a deeper tone of phlox pink. 25c.

Fall Bloomers. Breeders have developed varieties that bloom in the fall in addition to the spring. The best begin flowering in spring with the earliest and continue to late spring. Usually give a few flowers in summer if not too hot but not always. Again in the fall they bloom profusely. Usually a lot of winter flowers here. Now (in December) we have many flowers on the two varieties following.

Everblooming Plicata. Standards flushed with Saccardo's violet. Falls white, bordered and veined in throat with violet. Rather small compared with huge new types and not reaching their perfection in form but very pretty and produces probably five times as many flowers. \$1.50 each. Per doz. \$12.

Golden Cataract. Pure deep golden yellow. The most profuse bloomer among Iris, with possibly exception of Everblooming Plicata. The highly praised fall bloomer Eleanor Roosevelt does not give half as many flowers, nor as attractive. Often blooms within three months after moving. 75c ea. \$6. per doz.

\$1.00 Iris Collections. 35 unnamed seedling Iris. Mostly dwarf types many are pink or red toned. Some plicatas. A few are fall bloomers. No purples. No guarantee as to types you get but we mix them up the best we can. If preferred we can include part (or all) tall lavenders, etc. **\$1.00 Ten fine modern Iris**, including Cecil H., Bobby H., Eleanor Brooks and 7 others, our selection \$1.00. Or **20 good Iris** including Magnifica, Mother of Pearl, etc., \$1.00. The last two collections are labelled. We select the varieties. Don't name your choice or write to ask what is included. If particular, choose from the list the varieties you want and thus pay more. If ordered at the same time we send the two collections, all different, **30 var. for \$2.00.** All three collections, 55 Iris for \$2.75, postpaid.

Watsonia. If you did not plant Watsonias in the fall or if you live in the north where winter growing bulbs cannot be grown, try this one. This species, **Watsonia bulbifera** keeps well over winter and does not sprout much in storage. It is not the best but is worth trying. Color, capucine orange. Plant about like glads. 8c ea. Three, 20c. 50c doz. \$2.50 per 100.

Montbretia. They may be planted up to about March 1. Plant like Glads. They need constant moisture and it is best to add leaf mould or peat to soil. Like to be mulched with it. To close out a mixed lot we offer at a low price. Each, 10c. 75c doz. 100 for \$6.

Ixia. We have an excellent keeper that can be planted up to February 15, but not much later. Plant 2" deep, full sun. 35c doz. In the north, buy your bulbs now. Store at above freezing and plant early.

ARUM FAMILY ARACEAE. CALLAS, ARUMS, CALADIUMS

This family includes Calla Lilies or Zantedeschias, Fancy Leaf Caladiums, Arums, etc.

Culture. White callas should really be started in the fall, hence not listed this spring. Colored Callas, *Zantedeschia elliotiana* (yellow), *rehmanni* (pink) and *albo-maculata* (white with purple throat) do fine in pots or garden. For pots use soil of sandy loam mixed with equal portion of leaf mould or peat and some very old, rotted manure. Pot between December 15 and March 1, in moist soil. Water little if any until they start well. Then increase water. When growing well water liberally. Give plenty light and some sun. Plant in garden 2" or 3" deep in south about February. In north as early as possible, but avoiding danger of frost. Use peat, leaf mould, etc. liberally, as they want acid soil. Sulphur may be used in soil, or tan bark. Acidity can be increased by sparing use of Ammonium sulphate or superphosphate.

Fancy Leaf Caladiums like very rich sandy loam, or if soil is heavy incorporate much humus and well rotted manure, leaf mould and peat. Neutral to acid soil. They do wonderfully well under right culture even in arid climates. Do not plant outside until weather is quite warm. Water very little until they come up then they need constantly moist soil, in fact semi-aquatic conditions are fine but not essential. They are lovely in pots. Treat same as Callas. Be patient in starting as that is their critical period. Planted before sprouting in cold wet soil is usually fatal. The bulbs may be planted outside when weather is warm, 3" deep, only slightly moist and every bulb will grow. Or they may be sprouted first in barely moist peat or moss with air, light and warmth. Full sun gives richer colors but in our dry air, almost arid climate, we prefer slight shade.

Bulbs live and increase year after year but must be dug at once when tops are killed by frost. If dormant bulbs are left in the cold wet ground even a short time they begin to rot. They should be carefully dried and may be stored in dry peat moss, sawdust, etc., but dry and not too cold.

Zantedeschia albo-maculata. Spotted leaf calla. White flower, purple throat. Spear shaped spotted leaves are very attractive. 15c and 20c each. \$1.50 and \$2.00 per doz.

Z. elliotiana. Pure deep yellow calla. Most beautiful of all. 15c and 20c, or \$1.50 and \$2.00 per doz.

Z. rehmanni. Genuine calla flowers of rose pink. Plant 12" tall. 50c, 75c and \$1.00 ea. \$4.00, \$6.00 and \$8.00 doz. The 50c size is not as sure to bloom as the larger.

Amorphophallus rivieri. 3 ft. tall with rich tropical foliage which should be seen in every tropical garden. Flowers nearly 3 ft. long, calla shaped, rich chocolate dotted red. Bad odor at first. Only immense bulbs bloom. Plant in at least half shade, 4" deep. In the north grow in pots or dig and store in late fall. Sizes 75c, \$1.50 and \$2.50. Not likely to bloom first year.

Arum palaestinum. Black Calla or Solomon's Lily. Foliage and flower like callas. Really black. Plant 4" deep and not before about September 1. If not kept perfectly dry until that time the bulbs rot. Flowers about February in pots or in the garden in the south. No bad odor. Best in half shade. Small blooming size 35c. Doz. \$3.25. Large, 75c. Doz. \$7.00. Jumbo, \$1.00. Doz. \$10.00. Give jumbos a 10" pot. Delivery, June.

Arum italicum. Ivory flower. Foliage veined white, ornamental. 15c and 25c ea. \$1.50 and \$2.50 doz. Delivery, June.

Dracunculus vulgaris. Gorgeous tropical foliage with large black-purple flowers with carrion odor when first opened. Hardy in north if planted 8" to 12" deep and mulched. 35c and 65c each. \$3.00 and \$6.00 per doz. Delivery June to July.

Sauromatum venosum. Odd tropical foliage, and the most unusual flower, with a spathe 16" long, 1" wide, yellow with purple-black spots. Spathe lies on the ground hence the common name, Lizard Lily. Dry bulbs will bloom out of ground. Disagreeable odor. Need shade, plenty water. Large plants suggest tropical jungle. Hardy. S. 25c. Largest blooming size, \$1.50 ea. Order early.

Fancy Leaf Caladiums. These are the most gorgeous of all foliage plants, even more richly colored than Coleus. Some leaves are like the delicate tints of a lily or an orchid, others rich and luscious like a rose. Easy to grow if you follow our culture method described on a preceding page. But in buying Caladiums one must be sure to obtain the best sorts as (most unfortunately) there are a few growers who have sold muddy colored, rejected seedlings at a very low price to unsuspecting dealers. You can see our plants here at our ranch and at the Los Angeles County Fair. They are positively the very best sorts. Named varieties, no seedlings or rejects. Price 30c ea. 4 for \$1.00. Per doz. \$2.75. Per 100, \$22.00. If you want these labelled with name of variety send 5c per bulb extra.

OXALIS FAMILY. OXALIDACEAE

This is a large family, native to many parts of the world. Those listed in our fall catalog are winter growing. The following variety grows in the summer. Plant 2" deep. In the north the bulbs are dug and stored dry.

Oxalis lasiandra. Tallest variety, 10" with a rich foliage and red flowers. Compound leaves with many divisions, spread like a fan palm but at right angles to stem as in umbrella plant. Very desirable for your tropical garden. 3 for 10c. Doz. 35c. 100 for \$2.50.

RANUNCULUS FAMILY. RANUNCULACEAE

Includes Ranunculus and Anemones. Among the most popular cut flowers. Rich garden effects. Easy to grow with right culture. **Culture.** Do not soak bulbs as often advised. They can be planted in fall in the south but in north they must be started very early in spring. Ten degrees below freezing does little damage but best to cover bed when that cold. Ours have survived, undamaged,

a temperature of 20° F. But they will not stand very hot weather. In the north we suggest planting in pans or boxes about 6 weeks before you are able to plant in garden. Keep in a cool room in sun. Temperature around 40° to 70° is fine. Place bulbs 1" apart in pans of leaf mould or peat and sandy loam. Transplant to garden before tops are over 1" or 2" tall. Don't fear moderate frost, but don't move from warm room to cold garden.

In the south, bulbs planted three or four months before mid-summer heat will bloom beautifully. Plant 1" deep and 4" to 5" apart.

Ranunculus. Variety **Gold.** All pure yellow, very double flowers. Medium size, 25c doz. 60 for \$1.00.

Assorted colors, double flowers, large sizes, #1 and #2, 30c doz. 50 for \$1.00.

Anemones. Assorted colors, blues, reds, but no yellow. 15c doz. 100 for \$1.00. 500 for \$4.00. 1000 for \$7.50.

Anemones, named varieties. **His Excellency,** red, 30c doz. 50 for \$1.00. **White,** is like its name. 35c doz. 40 for \$1.00.

BEGONIA FAMILY. BEGONIACEAE

Tuberous Rooted Begonias. Wonderfully attractive bulbous plants for pots or a cool shady moist spot in the garden. It is nice to have a few Begonias and Clivias grouped around a Camelia on the north side of the house.

Culture. The best soil is half humus, the balance fine sand or sandy loam. For humus use two thirds peat or leaf mold and one third well rotted manure made fine as by rubbing thru a screen, no lumps. They like acid soil. If convenient improve this by adding charcoal or a little soot especially for pots. Cow manure water and soot water (handful to 2½ gal.) during growth helps. Cover bulbs about 2". Constant moisture when growing should be furnished by daily sprinkling. But not too much moisture around bulbs before sprouts start or they may rot. Many place bulbs in peat with the slightest moisture and plant only when top starts.

Begonia Bargain. We are offering a new strain this year in much larger bulbs and at a much lower price. That is better flowers, larger bulbs, lower price. A nice combination.

Giant Double Camelia flowered. 1¼" to 1½" diam. White, Yellow, Pink, Salmon, Orange, Scarlet, Crimson or Dark Red. Each 15c. 8 tubers, one of each color or 10 mixed slightly smaller for \$1.00.

LILY FAMILY. LILACEAE

The Lily Family includes *Lilium* (true lily), *Gloriosa*, *Milla*, *Galtonia* and other genera listed in our Fall Catalog.

Lilium. The true lily. Best planting time is the fall but the following will do very well if planted now or soon and will bloom this summer. Plant 4" deep. Best soil is a sandy loam but heavy soil is quite good. Add a very liberal amount of leaf mould or peat as they like mildly acid soil. This also lightens a heavy soil. Best to place sand under bulbs then cover bulbs with sand if soil is heavy. They like to have soil surface shaded as by a mulch or shrubs but top of lily in nearly full sun. Not available after March 1.

L. regale. White tinted orchid pink, golden throat. Large bulbs 7"-8" circumference. 25c ea. 5 for \$1.00.

L. formosanum, var. Wilson's Late. The best variety. Large long, tubular, white flowers like the Easter Lily. Does not make large bulbs. 25c.

Gloriosa. The Climbing Lily. Well named because the exquisite flowers are glorified lilies. Very rare. They grow from tubers. A tropical garden must have vines for variety and there are none to equal *Gloriosas* for rich effect.

Culture. They prefer deep well drained sandy soil, but do very well in heavy soil. In any soil add abundance of well rotted leaf mold, peat or humus. Fine for hillside planting where it may either climb or trail on ground. Can be grown in large pots or hanging basket. Start early as they need a long season. In north start in pots about March 1. Shift to garden. Dig, dry, pack in peat and store after first frost cuts foliage. Altho we dig every year it is said they may be left in ground in the south. Prices are for one eye tubers. Gloriosas start rather slowly, be patient. Don't over water before they come up.

Gloriosa rothschildiana. Large and gorgeous crimson flowers on 3 to 4 ft. stems. 50c ea. \$5.00 per doz.

G. superba. Climbs up to 10 ft. and produces more flowers that are exquisite, tho not quite as vivid. Starts later. 75c ea.

Milla biflora. Called in Mexico Estrellitas or Little Stars. Two to 7 showy, waxy white flowers on a 12"-18" stem. Green stripe on outside of petals adds striking contrast. Plant early in spring. In north dig and store bulbs over winter. Culture very easy. Plant 2" deep. 15c \$1.35 per doz.

Glatonia candicans. Summer Hyacinth. The strong 4 ft. stem carries a loose raceme of 20 or more large white bell-shaped flowers. Effective in groups or singly. Useful for cutting. **Culture** easy. Plant very early. In north dig, dry and store bulbs like glads. 15c Doz. \$1.25. Very small bulbs, 35c doz. \$2.50 per 100.

A NEW DEAL IN TULIPS

It is better not to plant too early. November is best month to plant. December very good and January planted bulbs will do well. In fact some advise January planting, but we think the stems will be slightly shorter. We did not plan to have bulbs this late but as a few are left over, we offer them at a bargain. Bulbs are in perfect condition, 1" to 1 1/4" diam. Mixed Darwins, Cottage and Breeders, which do well south or north. Northwest (U.S.) grown. Assorted colors or you may state color preference. Per doz. 25c. Per 100, \$1.75. Per 500, \$7.50. Per 1000, \$12.00. At the 500 and 1000 rate we ship postpaid only in Zone 1 and 2 for 30c per 1000 extra. Farther away we ship 500 or 1000 lots by express, charges collect.

Plant a big bed. You will get good flowers and better bulbs for next year. Keep well watered after planting until foliage dies. Best to mulch the bed. Better order before February 1 as we have very few.

ORCHID FAMILY. ORCHIDACEAE

The Orchid is the synonym of floral beauty. Most orchids are too difficult for the average gardner but the Bletilla is one of the easiest flowers to grow. Perfectly hardy in the north, easy anywhere. Plant 3" deep in good garden soil with a lot of peat or leaf mould added. Prefer a moist acid soil, half shady place but do well in almost full sun if moisture constant. Order before April 1 for dormant bulbs. After that add 10c each extra for growing plants.

Bletilla hyacintha. Beautiful plaited bright green leaves. Genuine small amethyst orchids in a raceme. Top size, 75c. \$6.50 per doz. Small, 35c. \$3.00 doz.

FREE PREMIUMS

Send me \$1.00 for one year's subscription to Madison Cooper's Gardening, the best all American garden magazine for the price. Or \$2.00 for membership in American Amaryllis Society. For 10c handling charge with either I will send free your choice of 25c packet Alstromeria seed, one Sprekelia formosissima or 10 Zephyranthes candida. This is a contribution to worthy enterprises, and not for profit to me.